USDA NRCS

Natural Resources Conservation Service

Conservation Across America

Pest Management

Job Sheet – 595

Image from Dow web site

Steps to Good Pasture Weed Control

Identify Problem Weeds:

You need to know what weed or weeds you are trying to control and if they are annual, biennial, or perennial. Since the major problems in pastures come from broadleaf weeds, wildflower books are often good sources to identify weeds. Wildflowers of Texas, by Ajilsgi, is one that is a good choice. Other books that may be useful are, Texas Range Plants, by Hatch and Pluhar, Field Guide to Southwestern and Texas Wildflowers, by Niehaus, and Weeds of the West, by the Western Weed Science Society.

Always Use a Calibrated Sprayer:

Proper calibration saves time and money by allowing you to apply the right amount of chemical to get the job done. This is extremely important with many of the new chemicals, which have very low amounts applied per acre.

Spray at the Right Time and in the Right Places:

If certain weeds are in different spots, try to map out the areas of infestation and spot treat the areas accordingly. Don't treat the entire pasture unless there are weeds throughout. If there are 8 or more weeds per square yard on rangeland weed control should be considered. In pasture, if 10-20 percent of the canopy consists of weeds treatment should be considered. These guidelines should be used carefully if wildlife is a consideration in the area. The only weeds that should be counted are the ones that are not good for wildlife or cattle.

Annual weeds are most susceptible to herbicides when they are small (usually 1-3 inches), actively growing, and moisture is adequate for uptake of chemicals from the soil. You can usually use lower rates of chemicals at this time saving money and reducing runoff or leaching risk. Mid to late summer applications can be made through early flowering period. If the seed crop is already set it is too late to spray.

For perennial and biennial weeds herbicides should be applied at the recommended stage as specified by the manufacturer. Remember, mature weeds and drought-stressed weeds are going to be hard to control, and have already cost you production. Don't spray under these conditions unless you can accept less than optimum control.

If you plant clovers in the fall, the herbicide you use in the spring must be a type that will not carry over into the fall. If you have clovers in the pasture and you wish to control weeds with herbicides you need to apply a short-lived herbicide after the clover has gone to seed.

Read and Follow Label Directions:

Remember, if it doesn't say it on the label you cannot do it. Be aware of state and local laws and regulations dealing with the use of herbicides. Follow the label for use, application, mixing, and anything else pertaining to the product you are using.

Last revised 7/01

Boom Sprayer Calibration

1. Determine nozzle spacing.
2. Refer to the following chart to determine calibration course:

Nozzle spacing	Length of calibration course
15”	272’
18”	227’
20”	204’
22”	186’
24”	170’

To determine calibration course for a nozzle spacing not listed, divide 340 by the spacing expressed in feet. Example: Calibration distance for 19 inch nozzle spacing=340 divided by 19/12 =215 feet.

3. Measure and stake off the appropriate calibration course based on nozzle spacing. The course should be on the same type of ground that will be sprayed. (Speeds may be faster on roads than on sod, changing the application rate).
4. Drive the course in the gear and rpm you will use when actually spraying. Record the time in seconds. Do this twice and average the time.
5. Park the tractor and maintain the same rpm.
6. Turn on the sprayer and catch the water from one nozzle for exactly the same number of seconds it took to drive the calibration course.
7. Ounces caught = gallons per acre.
8. Check all nozzles. Flow rate should not vary more than 10% among all nozzles. Replace any nozzles that do not fall into this range.

Boomless Sprayer Calibration

1. Measure effective swath width.
2. Refer to the following chart to determine calibration course:

Swath Width	Length of calibration course
35’	157’
40’	136’
45’	121’
50’	109’

To determine the length of calibration course for a swath width not listed, divide 5460 square feet (1/8 acre) by the swath width in feet. Example: Calibration distance for 32-foot swath width=5460 divided by 32=171.

3. Drive the course in the gear and rpm you will use when actually spraying. Record the time in seconds. Do this twice and average the time.
4. Park the tractor and maintain the same rpm.
5. Turn on the sprayer and use a trash bag and bucket to catch the water for exactly the same number of seconds required to drive the calibration course.
6. Pints caught=gallons per acre.

Source: Texas Agricultural Extension Service